KARACHI METROPOLITAN CORPORATION
ENGINEERING DEPARTMENT
OFFICE OF THE EXECUTIVE ENGINER

Between KBCA Officers Club & Karachi Water Sewerage Board Office, behind Civic Centre, Gulshan-e-Iqbal, karachi.

No : E.E/Engg:Deptt:/KMC/ 574/21 Dated : 12-11 -2021

To,

The Project Director,
Karachi Mobility Project,
(Yellow Line BRT), SMTA,
Karachi.

SUBJECT: REPAIR & MAINTENANCE DOCUMENTS ATTCAHED OF JAM SADIQ BRIDGE KARACHI METROPOLITAN CORPORATION ENGINEERING DEWPARTMENT.

With reference to your letter PD/SMTA/YLC/DDCS/06/2021/L-441 dated: 11-11-2021, following working and projects documents are submitted.

1. Design & As-built drawing and project document for the existing bridge is not available due to Jam Sadiq was built about 30 years ago by Karachi Development Authority Engineering Department, therefore Design and as built drawing are with Karachi Development Authority

2. Repair of Jam Sadiq Bridge was carried out by Karachi Metropolitan Corporation, Engineering Department in the year 2015. The following scope of work and working paper with design specification for repair / maintenance of Jam Sadiq Bridge are attached KMC Engineering Department worked on expansion joints. RCC approach slabs and asphalt wearing course work done at Jam Sadiq Bridge.

Therefore you respective Engineering Department can look at these working papers.

Executive Engineer
Karachi Metropolitan Corporation.

Copy to :
1. Administrator, KMC.
2. Metropolitan Commissioner, KMC.
3. Director General (T.S), KMC.
4. P.S to Minister, S.M.T.A.
5. Master File.

SMTA-TMTD
Diary No: 1427
Dated: 26-11-2021

37

No. MD/ SMTA/2021/1473

GOVERNMENT OF SINDH
SINDH MASS TRANSIT AUTHORITY
TRANSPORT & MASS TRANSIT DEPARTMENT

Karachi, Dated: Thursday, November 11th, 2021

To,

DIRECTOR GENERAL,
Technical Services,
Karachi Metropolitan Corporation
Karachi.

DG/TS/KMC Daily No. 2057 Date 15/11/21 LF

Bridges S/O - 17-11-2021

SUBJECT: INFORMATION REQUIRED FOR JAM SADIQ BRIDGE – KARACHI MOBILITY PROJECT (YELLOW BRT)

Please refer to the above subject and as mentioned in the previous letter PD/SMTA/YLC/DDCS/**06**/2021 dated 29th October 2021 (attached for reference).

Based on the initial visual inspection, structural elements of the bridge were observed having deterioration therefore a detailed structural evaluation of the bridge is essential to be conducted during the design phase of the project to investigate further action plan required to re-strengthen the bridge. For your reference a copy of extracted pages from the Preliminary Design report mentioning the above concern has been attached as **Annexure - A**

In this regards your good office is requested to provide the following data/documents:

1. Construction date of existing Jam Sadiq Bridge.
2. How many times the bridge was rehabilitated and by which consultant.
3. Details and scope of rehabilitations.

Addition to this it is also essential if your good office can provide **details design** of this bridge or **construction drawings or as built drawings or rehabilitation** or any other important documents related to the **construction, rehabilitation or structural data** of the Jam Sadiq bridge.

C.E (Bridges)

18/11/2021

MANAGING DIRECTOR
SINDH MASS TRANSIT AUTHORITY

Encl: 1. Extracted pages (33 & 34) from the Update of the Preliminary Design and Cost Estimates for 'Karachi Urban Mobility Project', BRTS Yellow Line.

A copy is forwarded for information to:

1. Project Director (KMP Yellow – BRT)
2. Municipal Commissioner Karachi, *(with request to convene a meeting on the subject matter)*
3. Director Infrastructure/Projects, SMTA, Karachi
4. PS to Chairman P&D, GoS
5. Rehan Zamin, Chief Engineer NESPAK (Project Manager, Yellow BRT)
6. PS to Secretary Transport and Mass Transit Department.
7. Master File.

Using the basic design equation for rigid pavement (AASHTO Guide of Pavement Standard 1993) and parameters/inputs as described in section 2.3.1, the layer thicknesses have been calculated as shown on the relevant drawing.

The rigid pavement structure may change at detailed design phase as per the final Geotechnical Investigations and after other relevant studies. At Segment-5 and Depot-2, where water table is shallow the improved sub-grade may be replaced with Stone soling.

5.2.2.2 Design Life

The design life for rigid pavement is taken as 20 years, with yearly inspection and maintenance as and when required.

5.3 STRUCTURAL DESIGN

5.3.1 Bus Stations & Pedestrian Bridges

At sites with high vehicular traffic and pedestrian flows, it may be necessary to provide subways or pedestrian bridges.

Pedestrian bridges and bus stations have been provided in steel structure similar to Red Line project. Floor will either be reinforced concrete deck slabs or chequered plates.

Pedestrian facilities include sidewalks, crosswalks, traffic control features, curbs, ramped sidewalks, stairs, elevators, and escalators etc.

5.3.1.1 Loading

- Pedestrian bridges shall be designed for a live load of 85psf as per AASHTO requirements
- Railing to be designed as per AASHTO standard
- All other loading and standards shall be considered as defined in **Annexure - 5**
- Foundations shall be designed as per assumed data as defined in **Annexure – 5**

5.3.2 Construction of New Jam Sadiq Bridge

A new bridge has been proposed adjacent to the existing bridge to cater for the traffic demand. The super structure of proposed new Jam Sadiq Bridge is kept similar to the existing bridge and the piers are kept in line with the existing bridge so as to minimize the hindrance in the flow of Nullah / River. All girders will be simply supported on laminated elastomeric bearings resting on reinforced concrete transoms over piers.

Since there are few contractors who are capable of executing large diameter piling works (say 1,800 mm), therefore, instead of providing one large diameter pile under each pier (as in existing bridge), two rows of smaller diameter piles have been proposed.

Abutments will be provided keeping such height as to allow maintenance work to be carried out underneath. Keeping in view the river flow, permanent steel liners have been proposed for piles in Nullah.

5.3.3 Rehabilitation of Existing Jam Sadiq Bridge

5.3.3.1 Observations & Findings:

A team of consultant's structural engineers carried out a preliminary visual inspection of the existing bridge at Jam Sadiq in order to get an idea of current condition of the bridge. All the accessible /

visible structural elements of the bridge were inspected for apparent damages / distress. Refer photographs in **Annexure-6**.

Following are the observations and findings during preliminary visual inspection of the bridge:

- The structure of the bridge comprises of pre-stressed concrete I-Girders composite with Reinforced Cement Concrete (RCC) deck resting on RCC transom which is supported by RCC piers. Each pier is resting on a larger diameter RCC pile which transfers the superstructure loads deep into the ground.
- The deck slab of the bridge could only be visually inspected from its underside within the accessible portion and was observed to be in good condition except some expansion joint locations. At these locations spalling of concrete was observed and steel re-bars were found to be exposed. Refer Photographs No. 07 to 12.
- The girders of the bridge were generally observed to be in good condition except at some places where minor deteriorations were observed and re-bars were found to be exposed. Refer Photographs No. 15 to 20.
- Bearing pads were found to be in good condition with no sign of any visible deformations.
- Deteriorations were observed in some of the transoms due to corrosion of re-bars, spalling of concrete and detachment of concrete cover. Refer Photographs No. 25 to 34.
- Majority of visible piers of the bridge (i.e. between the two embankments of the river) were found to be retrofitted/repaired with RCC jacketing of different heights. Refer Photographs No. 37 to 42.
  However, even after being repaired, cracks were observed in some of the piers in both jacketed and non-jacketed portions of the piers. It is possible that jacketed portions may not have been connected with the inner core concrete of the original pier through shear connectors which resulted in cracks in jacketed portions due to vibrations transferred from the superstructure. Spalling and deterioration of concrete cover was also observed at some locations. Lateral ties of one of the piers were observed to be exposed in small portion. Refer Photographs No. 40.
- Side railings on top of the bridge were not in good condition. Cracks and exposed re-bars were observed at various locations. Refer Photographs No. 43 to 46.
- Non-destructive tests were carried out using a rebound Schmidt Hammer at randomly selected accessible structural elements of the bridge to get rough idea of strength of concrete. Results of the non-destructive tests are summarized as below:

Table 5-5: Cylindrical Strength

S. No.	Structural Elements	Average Cylindrical Strength (Psi)
1.	Piers	4550
2.	Transoms	5500
3.	Girders	5475
4.	Deck	4300

5.3.3.2 Conclusion and Recommendations

Based on preliminary visual inspection, it is concluded that deteriorations were observed in certain structural elements of the bridge and therefore, a detailed structural evaluation of the bridge is required at detail design phase for further investigations and re-strengthening of the deficient structural elements.

Focal Person from M/s NESPAK is Mr. Rehan Zamin – (Cell No:0345-222-3830).

Focal Person from SMTA is Mr. Jalal Jafri – SHEQ Specialist (Cell No: 0331-257-7617).

for PROJECT DIRECTOR
Karachi Mobility Project
(Yellow BRT), SMTA

A copy is forwarded for information to:

1. Administrator, Karachi Metropolitan Corporation, Karachi.
2. Municipal Commissioner, Karachi.
3. Director Infrastructure/ Projects, SMTA, Karachi.
4. DIG, Traffic Police, Karachi.
5. Rehan Zamin, NESPAK, Karachi
6. Mr. Jalal Jafri, SHEQ Specialist, Sindh Mass Transit Authority, Karachi.
7. PS to Secretary, Transport & Mass Transit Department, Govt. Of Sindh.
8. PS to Secretary, Local Government and Housing Town Planning Department
9. Master File.

Scanned with CamScanner

27

IMPORTANT

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-YBRT)/ 8168-69 /Karachi,
Dated: - 12 -11-2021.

The Superintendent, of Police,
Traffic District, East,
Karachi.

Subject: - **REQUEST FOR COORDINATION DURING DESIGN, CONSTRUCTION AND SUPERVISION OF KMP (YELLOW BRT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/L.459, dated 04-11-2021, addressed to the M.D National Refinery Ltd., Karachi and a copy thereof endorsed to this office by Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, on the subject noted above, for information and necessary action.

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

Copy to the Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, w/r to the No. quoted above, for information please.

SMTA-TMTD
Dairy No: 4904
Dated: 12-11-21

25

IMPORTANT

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-YBRT)/ 8166 – 67/Karachi,
Dated: - 12 -11-2021.

The Superintendent, of Police,
Traffic District, East,
Karachi.

Subject: - **REQUEST FOR COORDINATION DURING DESIGN, CONSTRUCTION AND SUPERVISION OF KMP (YELLOW BRT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/L.457, dated 04-11-2021, addressed to the M.D, Pak Arab Refinery Co. Ltd., Karachi and a copy thereof endorsed to this office by Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, on the subject noted above, for information and necessary action.

17/11

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

✓Copy to the Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, w/r to the No. quoted above, for information please.

SMTA-TMTD
Dairy No. 2402
Dated: 12-11-2021

23

IMPORTANT

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-YBRT)/ 8164 – 65 /Karachi,
Dated: - 12 -11-2021.

The Superintendent, of Police,
Traffic District, East,
Karachi.

Subject: - **REQUEST FOR COORDINATION DURING DESIGN, CONSTRUCTION AND SUPERVISION OF KMP (YELLOW BRT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/L456, dated 04-11-2021, addressed to the M.D & CEO, Pak Refinery Ltd., Karachi and a copy thereof endorsed to this office by Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, on the subject noted above, for information and necessary action.

17/11

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

✓Copy to the Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, w/r to the No. quoted above, for information please.

RECEIVED
SMTA-TMTD
Dairy No: 2103
Dated: 12-11-2021

21

IMPORTANT

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-YBRT)/ 8162-63 /Karachi,
Dated: - 12 -11-2021.

The Superintendent, of Police,
Traffic District, East,
Karachi.

Subject: - **REQUEST FOR COORDINATION DURING DESIGN, CONSTRUCTION AND SUPERVISION OF KMP (YELLOW BRT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/L.459, dated 04-11-2021, addressed to the M.D SSGC Ltd., Karachi and a copy thereof endorsed to this office by the Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, on the subject noted above, for information and necessary action.

17/11/21.
Dir. Traffic

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

Copy to the Project Director, KMP (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, w/r to the No. quoted above, for information please.

RECEIVED
SMTA-TMTD
Dairy No. 1104
Dated: 12-11-2021

19

IMPORTANT

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-Y)/ 7561 - 62 /Karachi,
Dated: - 11 -10-2021.

The Superintendent of Police,
Traffic District, Malir,
Karachi.

Subject: - **COORDINATON REQUESTED DURING STRUCTURAL INVESTIGATION WORKS AT JAM SADIQ BRIDGE FOR KARACHI MOBILITY PROJECT (YELLOW BRT PROJECT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/04/2021/L-396, dated 06-10-2021, addressed to the D.G (Technical Services), KMC, Karachi and a copy thereof endorsed to this office by the Project Director, Karachi Mobility Project (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, Karachi, on the subject noted above, for information and necessary action.

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

Copy to the Project Director, Karachi Mobility Project (Yellow BRT), SMTA, T&MTD, Govt. of Sindh, H#D-43 & D-43/1, Shahrah-e-Ghalib, Block-2, Clifton near Bilawal Chowrangi, Karachi, w/r to the No. quoted above, for information.

17

OFFICE OF THE
DEPUTY INSPECTOR GENERAL OF POLICE,
TRAFFIC, KARACHI.

No.DIGP/Traffic/RDR/(1246-YBRT)/ 8160-61 /Karachi,
Dated: - 12 -11-2021.

The Superintendent, of Police,
Traffic District, East,
Karachi.

Subject: - **DOCUMENTS REQUIRED FOR JAM SADIQ BRIDGE – KARACHI MOBILITY PROJECT (YELLOW BRT).**

Enclosed please herewith a copy of letter No.PD/SMTA/YLC/DDCS/06/2021/L.441, dated 29-10-2021, addressed to the D.G, Technical Services Deptt:, KMC, Karachi and a copy thereof endorsed to this office by the Project Director, KMP (Yellow BRT), SMTA, Govt. of Sindh, Karachi, on the subject noted above for information and necessary action.

(ASIM ALI BHUTTO), SPS
ADIGP/Traffic
For: Deputy Inspector General of Police,
Traffic, Karachi.

✓Copy to the Project Director, KMP (Yellow BRT), SMTA, Govt. of Sindh, Karachi, w/r to the No. quoted above for information please.

SMTA-TMTD
Dairy No: 1105
Dated: 12-11-2021

No. MD/ SMTA/2021/1473

15

GOVERNMENT OF SINDH
SINDH MASS TRANSIT AUTHORITY
TRANSPORT & MASS TRANSIT DEPARTMENT

Karachi, Dated: Thursday, November 11th, 2021

To,

DIRECTOR GENERAL,
Technical Services,
Karachi Metropolitan Corporation
Karachi.

SUBJECT: INFORMATION REQUIRED FOR JAM SADIQ BRIDGE – KARACHI MOBILITY PROJECT (YELLOW BRT)

Please refer to the above subject and as mentioned in the previous letter PD/SMTA/YLC/DDCS/**06**/2021 dated 29th October 2021 (attached for reference).

Based on the initial visual inspection, structural elements of the bridge were observed having deterioration therefore a detailed structural evaluation of the bridge is essential to be conducted during the design phase of the project to investigate further action plan required to re-strengthen the bridge. For your reference a copy of extracted pages from the Preliminary Design report mentioning the above concern has been attached as **Annexure - A**

In this regards your good office is requested to provide the following data/documents:

1. Construction date of existing Jam Sadiq Bridge.
2. How many times the bridge was rehabilitated and by which consultant.
3. Details and scope of rehabilitations.

Addition to this it is also essential if your good office can provide **details design** of this bridge or **construction drawings or as built drawings or rehabilitation** or any other important documents related to the **construction, rehabilitation or structural data** of the Jam Sadiq bridge.

MANAGING DIRECTOR
SINDH MASS TRANSIT AUTHORITY

Encl: 1. Extracted pages (33 & 34) from the Update of the Preliminary Design and Cost Estimates for 'Karachi Urban Mobility Project', BRTS Yellow Line.

A copy is forwarded for information to:

1. Project Director (KMP Yellow – BRT)
2. Municipal Commissioner Karachi, *(with request to convene a meeting on the subject matter)*
3. Director Infrastructure/Projects, SMTA, Karachi
4. PS to Chairman P&D, GoS
5. Rehan Zamin, Chief Engineer NESPAK (Project Manager, Yellow BRT)
6. PS to Secretary Transport and Mass Transit Department.
7. Master File.

Using the basic design equation for rigid pavement (AASHTO Guide of Pavement Standard 1993) and parameters/inputs as described in section 2.3.1, the layer thicknesses have been calculated as shown on the relevant drawing.

The rigid pavement structure may change at detailed design phase as per the final Geotechnical Investigations and after other relevant studies. At Segment-5 and Depot-2, where water table is shallow the improved sub-grade may be replaced with Stone soling.

5.2.2.2 Design Life

The design life for rigid pavement is taken as 20 years, with yearly inspection and maintenance as and when required.

5.3 STRUCTURAL DESIGN

5.3.1 Bus Stations & Pedestrian Bridges

At sites with high vehicular traffic and pedestrian flows, it may be necessary to provide subways or pedestrian bridges.

Pedestrian bridges and bus stations have been provided in steel structure similar to Red Line project. Floor will either be reinforced concrete deck slabs or chequered plates.

Pedestrian facilities include sidewalks, crosswalks, traffic control features, curbs, ramped sidewalks, stairs, elevators, and escalators etc.

5.3.1.1 Loading

- Pedestrian bridges shall be designed for a live load of 85psf as per AASHTO requirements
- Railing to be designed as per AASHTO standard
- All other loading and standards shall be considered as defined in **Annexure - 5**
- Foundations shall be designed as per assumed data as defined in **Annexure – 5**

5.3.2 Construction of New Jam Sadiq Bridge

A new bridge has been proposed adjacent to the existing bridge to cater for the traffic demand. The super structure of proposed new Jam Sadiq Bridge is kept similar to the existing bridge and the piers are kept in line with the existing bridge so as to minimize the hindrance in the flow of Nullah / River. All girders will be simply supported on laminated elastomeric bearings resting on reinforced concrete transoms over piers.

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Abutments will be provided keeping such height as to allow maintenance work to be carried out underneath. Keeping in view the river flow, permanent steel liners have been proposed for piles in Nullah.

5.3.3 Rehabilitation of Existing Jam Sadiq Bridge

5.3.3.1 Observations & Findings:

A team of consultant's structural engineers carried out a preliminary visual inspection of the existing bridge at Jam Sadiq in order to get an idea of current condition of the bridge. All the accessible /

visible structural elements of the bridge were inspected for apparent damages / distress. Refer photographs in **Annexure-6**.

Following are the observations and findings during preliminary visual inspection of the bridge:

- The structure of the bridge comprises of pre-stressed concrete I-Girders composite with Reinforced Cement Concrete (RCC) deck resting on RCC transom which is supported by RCC piers. Each pier is resting on a larger diameter RCC pile which transfers the superstructure loads deep into the ground.
- The deck slab of the bridge could only be visually inspected from its underside within the accessible portion and was observed to be in good condition except some expansion joint locations. At these locations spalling of concrete was observed and steel re-bars were found to be exposed. Refer Photographs No. 07 to 12.
- The girders of the bridge were generally observed to be in good condition except at some places where minor deteriorations were observed and re-bars were found to be exposed. Refer Photographs No. 15 to 20.
- Bearing pads were found to be in good condition with no sign of any visible deformations.
- Deteriorations were observed in some of the transoms due to corrosion of re-bars, spalling of concrete and detachment of concrete cover. Refer Photographs No. 25 to 34.
- Majority of visible piers of the bridge (i.e. between the two embankments of the river) were found to be retrofitted/repaired with RCC jacketing of different heights. Refer Photographs No. 37 to 42.

  However, even after being repaired, cracks were observed in some of the piers in both jacketed and non-jacketed portions of the piers. It is possible that jacketed portions may not have been connected with the inner core concrete of the original pier through shear connectors which resulted in cracks in jacketed portions due to vibrations transferred from the superstructure. Spalling and deterioration of concrete cover was also observed at some locations. Lateral ties of one of the piers were observed to be exposed in small portion. Refer Photographs No. 40.
- Side railings on top of the bridge were not in good condition. Cracks and exposed re-bars were observed at various locations. Refer Photographs No. 43 to 46.
- Non-destructive tests were carried out using a rebound Schmidt Hammer at randomly selected accessible structural elements of the bridge to get rough idea of strength of concrete. Results of the non-destructive tests are summarized as below:

Table 5-5: Cylindrical Strength

S. No.	Structural Elements	Average Cylindrical Strength (Psi)
1.	Piers	4550
2.	Transoms	5500
3.	Girders	5475
4.	Deck	4300

5.3.3.2 Conclusion and Recommendations

Based on preliminary visual inspection, it is concluded that deteriorations were observed in certain structural elements of the bridge and therefore, a detailed structural evaluation of the bridge is required at detail design phase for further investigations and re-strengthening of the deficient structural elements.

GOVERNMENT OF SINDH
Karachi Mobility Project
(YELLOW LINE BRTS)
SINDH MASS TRANSIT AUTHORITY
TRANSPORT & MASS TRANSIT DEPARTMENT

PD/SMTA/YLC/DDCS/ 004 /2021/ L-441a

Karachi Dated: Friday, October 29, 2021

To,

DIRECTOR GENERAL
Technical Services Department,
Karachi Metropolitan Corporation,
Karachi.

SUBJECT: DOCUMENTS REQUIRED FOR JAM SADIQ BRIDGE - KARACHI MOBILITY PROJECT (YELLOW BRT)

Please refer to the above subject and as mentioned in the previous letter PD/SMTA/YLC/DDCS/ 004 /2021/ dated 6th October 2021 that the Consultant of Yellow BRT M/s Dar-ul-Handasah JV M/s NESPAK intends to conduct several structural investigations on the existing Jam Sadiq bridge.

The Consultants have requested that in order to achieve an effective evaluation and recommendation for the rehabilitation works required for the existing Jam Sadiq Bridge the following documents are required.

Design or As-built drawings and project documents for the existing bridge, especially with the information related to the bridge's hidden main elements such as foundations piles and pile caps, pre-stressing reinforcement and forces, details of reinforcement, etc.

Repair design drawings, reports and documents of the existing repairs conducted on the bridge in the past specially those conducted in the recent years around 2015, mainly:

a. The type of jacketing applied to the piers,
b. Whether the jackets are shear connected to the pier or not,
c. The reinforcement of the jackets,
d. The basis of design of the jackets, and why they were given different heights and whether the jackets fully extend to the pile caps,

The above data along with all other previous repair data will help to reduce / remove any ambiguities.

Previous inspection and evaluation reports which is an integral part in the evaluation to understand the previously detected defects and the evaluation of the action taken and any further degradation with time.

It may please be noted that the above information is very essential and important to achieve an effective evaluation to the exact rehabilitation works required for the existing Jam Sadiq Bridge.

In this regards, your good office is requested to provide the above mentioned documents. We highly appreciate your prompt response in providing the required documents regarding the existing Jam Sadiq Bridge.

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Focal Person from M/s NESPAK is Mr. Rehan Zamin – (Cell No:0345-222-3830).

Focal Person from SMTA is Mr. Jalal Jafri – SHEQ Specialist (Cell No: 0331-257-7617).

for PROJECT DIRECTOR
Karachi Mobility Project
(Yellow BRT), SMTA

A copy is forwarded for information to:

1. Administrator, Karachi Metropolitan Corporation, Karachi.
2. Municipal Commissioner, Karachi.
3. Director Infrastructure/ Projects, SMTA, Karachi.
4. DIG, Traffic Police, Karachi.
5. Rehan Zamin, NESPAK, Karachi
6. Mr. Jalal Jafri, SHEQ Specialist, Sindh Mass Transit Authority, Karachi.
7. PS to Secretary, Transport & Mass Transit Department, Govt. Of Sindh.
8. PS to Secretary, Local Government and Housing Town Planning Department
9. Master File.

Scanned with CamScanner

KARACHI METROPOLITAN CORPORATION
ENGINEERING DEPARTMENT)

Engr. Shabih-ul-Hasnain
Director General (Technical Services)
No : D.G/T.S/KMC/ 253 /21

512-JM, New M.A Jinnah Road, Karachi
Phone No : 99230951
Dated :- 13 - September 2021

To,
The Project Director,
Karachi Mobility Project (Yellow BRT),
S.M.T.A.

SUBJECT: **COORDINATION REQUESTED DURING STRUCTURAL INVESTIGATION WORKS AT JAM SADIQ BRIDGE FOR KARACHI MOBILITY PROJECT (YELLOW BRT PROJECT)**

Reference : Letter No. PD/SMTA/YLC/DDCS/04/2021/L-396 dated: 06-10-2021.

With the reference to your letter No. referred above in which you have requested to issue NOC to carry out the structural investigation works at Jam Sadiq Bridge for Karachi Mobility Project (Yellow BRT Project) and to nominate a focal person to ensure close coordination during the above mentioned work.

In this regard, this office has no objection if you may carry out the required structural investigation work at Jam Sadiq Bridge for Karachi Mobility Project and Mr. Ishrat Rehan Executive Engineer and Mr. Mohammad Ali Shah, Assistant Executive Engineer, Engineering Department, KMC is hereby nominated as a focal person to ensure close coordination with your department during execution the above mentioned works and his contact Number of KMC is 033-1131997 and 0332-5554410.

Director General (Technical Service)
Karachi Metropolitan Corporation

Copy to :
1. Administrator, KMC.
2. Metropolitan Commissioner, KMC.
3. Office Copy.

3

GOVERNMENT OF SINDH
Karachi Mobility Project
(YELLOW LINE BRTS)
SINDH MASS TRANSIT AUTHORITY
TRANSPORT & MASS TRANSIT
DEPARTMENT

PD/SMTA/YLC/DDCS/ 04/2021/L-396

Karachi Dated: Wednesday, October 6, 2021

To,

DIRECTOR GENERAL (TECHNICAL SERVICES),
Karachi Metropolitan Corporation,
Karachi.

SUBJECT: COORDINATION REQUESTED DURING STRUCTURAL INVESTIGATION WORKS AT JAM SADIQ BRIDGE FOR KARACHI MOBILITY PROJECT (YELLOW BRT PROJECT).

Please refer to the subject mentioned above for structural investigation works at Jam Sadiq Bridge, Karachi of Yellow BRT Project located over the Malir River and connects Korangi Industrial area with DHA and beyond. The bridge is around 1100m long and four (2+2) lane having an overall Right of Way (ROW) up to 20m.

2. Moving forward, our project consultant M/s NESPAK (Pakistan) Jv M/s Dar-ul-Handasah (Lebenon) intends to conduct several structural investigations, as a part of scope of work, which includes the following tests.

No. PS/SECY/ 4347/L
Dated: 07-10-2021
TRANSPORT DEPTT.

I. Rebound Hammer (Schimidt Hammer) Test;
II. Rebar Scanning of Ferro scanning;
III. CAPO Test;
IV. Core Extraction and Compressive Strength Test;
V. Chloride Content Test of extracted cores;
VI. Sulphate Content Test of extracted cores;
VII. Concrete Composition Test; and
VIII. Carbonation Test on extracted cores.

3. The project consultant has been informed to undertake the subject works in such a manner to ensure minimum disruption to the traffic. As such no traffic re-routing will be required. It is estimated that these investigations will take approximately, a time period of 45 days.

Forward it to Administrator KMC

House # D-43 & D-43/1, Shahra-e-Ghalib, Block 2, Clifton, near Bilawal Chowrangi, Karachi, 75600 Tel: 021-99332207-8

4. In this regards, your good-self is requested to provide "NOC" on the subject matter in order to carry out the required investigation. Also please nominate and provide contact details of focal person to ensure close coordination during the above mentioned works.

5. Focal Person from M/s NESPAK is Engr. Faisal Karim – (Cell No: 0310-263-1029).

6. The Focal Person from SMTA is Mr. Jalal Jafri – SHEQ Specialist (Cell No: 0331-257-7617).

PROJECT DIRECTOR
Karachi Mobility Project (Yellow BRT), SMTA

A copy is forwarded for information to:

1. Administrator, Karachi Metropolitan Corporation, Karachi.
2. Director Infrastructure/ Projects, SMTA, Karachi.
3. DIG, Traffic Police, Karachi.
4. Rehan Zamin, NESPAK, Karachi
5. Mr. Jalal Jafri, SHEQ Specialist, Sindh Mass Transit Authority, Karachi.
6. PS to Secretary, Transport & Mass Transit Department, Govt. Of Sindh.
7. PS to Secretary, Local Government and Housing Town Planning Department
8. Master File.